

1. a projection system constructed and arranged to utilize said radiation to image an irradiated portion of the mask onto a target portion of the substrate; and

2. at least one of said illumination system and projection system having an optical element with a surface on which radiation is incident and a capping layer covering said surface, said capping layer being formed of a relatively inert material,

3. wherein said relatively inert material is selected from the group consisting of: diamond-like carbon, Ru, Rh, TiN, MgF₂, LiF, C₂F₄ and compounds and alloys thereof.

15. (Four Times Amended) A device manufacturing method using a lithographic apparatus, the method comprising:

4. providing a mask containing a pattern to a first object table;

5. providing a substrate at least partially covered by a layer of energy-sensitive material to a second object table; and

6. irradiating said mask and imaging irradiated portions of said pattern onto said substrate;

7. said irradiating comprising directing radiation onto a surface of an optical element, the surface having a capping layer formed of a relatively inert material,

8. wherein said relatively inert material is selected from the group consisting of: diamond-like carbon, Ru, Rh, TiN, MgF₂, LiF, C₂F₄ and compounds and alloys thereof.

21. (Twice Amended) The lithographic projection apparatus according to claim 20,

9. wherein said relatively inert material is selected from the group consisting of: diamond-like carbon (C), Ru, Rh, Au, MgF₂, LiF, C₂F₄, TiN and compounds and alloys thereof.

See the attached Appendix for the changes made to effect the above-amended claims.